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(71) Applicant (*for all designated States except US*): YEDA RESEARCH AND DEVELOPMENT CO. LTD. [IL/IL]; Weizmann Institute of Science, P.O. Box 95, 76100 Rehovot (IL).

(71) Applicants and  
(72) Inventors: SCHERZ, Avigdor [IL/IL]; 4 Tor Ha'aviv Street, Neve Amit, 76329 Rehovot (IL). BRANDIS, Alexander [IL/IL]; 9/3 Ahad Ha'am Street, 76261 Rehovot (IL). MAZOR, Ohad [IL/IL]; 3, Haela Street, Ganei Yaar, 71531 Lod (IL). SALOMON, Yoram [IL/IL]; 43B Gordon Street, 76287 Rehovot (IL). SCHEER, Hugo [DE/DE]; 3 Orststrasse, 87662 Blonhofen (DE).

(74) Agent: BEN-AMI, Paulina; Ben-Ami & Associates, P.O. Box 94, 76100 Rehovot (IL).

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**WO 2004/045492 A3**

(54) Title: WATER-SOLUBLE ANIONIC BACTERIOCHLOROPHYLL DERIVATIVES AND THEIR USES

(57) Abstract: The invention provides anionic water-soluble tetracyclic and pentacyclic bacteriochlorophyll derivatives (Bchl's) containing at least one, preferably two or three, negatively charged groups and/or acidic groups that are converted to negatively charged groups at the physiological pH, preferably Bchl's having a group  $\text{COO}^-$ ,  $\text{COS}^-$ ,  $\text{SO}_3^{2-}$ ,  $\text{PO}_3^{2-}$ ,  $\text{COOH}$ ,  $\text{COSH}$ ,  $\text{SO}_3\text{H}$ , and/or  $\text{PO}_3\text{H}_2$  bound through an ester or amide bond to one or more of the positions 17<sup>3</sup>, 13<sup>3</sup>, and 3<sup>2</sup> of the tetracyclic or pentacyclic Bchl molecule, for photodynamic therapy and diagnosis.

# INTERNATIONAL SEARCH REPORT

International application No.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/40  
US CL : 514/427, 410, 426

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/427, 410, 426

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAPLUS, USPATFULL, PCTFULL

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,147,195 A (SCHERZ et al.) 14 November 2000 (14.11.2000), abstract, Figures 1-5, column 1 lines 11-17, column 3-4, Examples at column 12-26, claims 1-9.	1-50
X	US 5,955,585 A (SCHERZ et al.) 21 September 1999 (21.09.1999), abstract, Figures 1-5, column 1 lines 11-17, column 3-4, Examples at column 9-19, claims 1-19.	1-50

Further documents are listed in the continuation of Box C.

See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (703)305-3230

Authorized officer

*Charlie Bell-Harris Jr.*

Telephone No. 571/272-1600